

NOV 5 2001

TECH CENTER 1600/2900

RECEIVED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/726,650

DATE: 11/05/2001

TIME: 13:21:50

Input Set : D:\062710024DVUS01.TXT

Output Set: N:\CRF3\11022001\I726650.raw

#12

ENTERED

p.5

4 <110> APPLICANT: WINTER, Gregory P.
 5 RIECHMAN, Lutz
 6 HUSE, William D.
 7 SORGE, Joseph A.
 8 LERNER, Richard A.
 11 <120> TITLE OF INVENTION: A NEW METHOD FOR TAPPING THE
 12 IMMUNOLOGICAL REPERTOIRE
 14 <130> FILE REFERENCE: 062710024DVUS01
 16 <140> CURRENT APPLICATION NUMBER: 09/726,650
 17 <141> CURRENT FILING DATE: 2000-11-28
 19 <150> PRIOR APPLICATION NUMBER: 07/933,958
 20 <151> PRIOR FILING DATE: 1992-08-21
 22 <150> PRIOR APPLICATION NUMBER: 07/799,770
 23 <151> PRIOR FILING DATE: 1991-11-27
 25 <150> PRIOR APPLICATION NUMBER: 07/533,103
 26 <151> PRIOR FILING DATE: 1990-06-04
 28 <160> NUMBER OF SEQ ID NOS: 106
 30 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 32 <210> SEQ ID NO: 1
 33 <211> LENGTH: 123
 34 <212> TYPE: PRT
 35 <213> ORGANISM: Mouse
 37 <220> FEATURE:
 38 <221> NAME/KEY: VARIANT
 39 <222> LOCATION: (1)...(123)
 40 <223> OTHER INFORMATION: HPCM2-hybridoma
 42 <400> SEQUENCE: 1
 43 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 44 1 5 10 15
 45 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Phe
 46 20 25 30
 47 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
 48 35 40 45
 49 Ala Ala Ser Arg Asn Lys Ala Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
 50 50 55 60
 51 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
 52 65 70 75 80
 53 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
 54 85 90 95
 55 Tyr Cys Ala Arg Asp Tyr Tyr Gly Ser Ser Tyr Trp Tyr Phe Asp Val
 56 100 105 110
 57 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
 58 115 120
 60 <210> SEQ ID NO: 2
 61 <211> LENGTH: 123
 62 <212> TYPE: PRT
 63 <213> ORGANISM: Mouse

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/726,650

DATE: 11/05/2001

TIME: 13:21:50

Input Set : D:\062710024DVUS01.TXT

Output Set: N:\CRF3\11022001\I726650.raw

```

65 <220> FEATURE:
66 <221> NAME/KEY: VARIANT
67 <222> LOCATION: (1)...(123)
68 <223> OTHER INFORMATION: HPCM3-hybridoma
70 <400> SEQUENCE: 2
71 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
72 1 5 10 15
73 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Phe
74 20 25 30
75 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
76 35 40 45
77 Ala Ala Ser Arg Asn Lys Ala Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
78 50 55 60
79 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
80 65 70 75 80
81 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
82 85 90 95
83 Tyr Cys Ala Arg Asp Tyr Tyr Gly Ser Ser Tyr Trp Tyr Phe Asp Val
84 100 105 110
85 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
86 115 120
88 <210> SEQ ID NO: 3
89 <211> LENGTH: 123
90 <212> TYPE: PRT
91 <213> ORGANISM: Mouse
93 <220> FEATURE:
94 <221> NAME/KEY: VARIANT
95 <222> LOCATION: (1)...(123)
96 <223> OTHER INFORMATION: HPCM1-hybridoma
98 <400> SEQUENCE: 3
99 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
100 1 5 10 15
101 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Phe
102 20 25 30
103 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
104 35 40 45
105 Ala Ala Ser Arg Asn Lys Ala Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
106 50 55 60
107 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
108 65 70 75 80
109 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
110 85 90 95
111 Tyr Cys Ala Arg Asp Tyr Tyr Gly Ser Ser Tyr Trp Tyr Phe Asp Val
112 100 105 110
113 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
114 115 120
116 <210> SEQ ID NO: 4
117 <211> LENGTH: 123
118 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/726,650

DATE: 11/05/2001

TIME: 13:21:50

Input Set : D:\062710024DVUS01.TXT

Output Set: N:\CRF3\11022001\I726650.raw

```

119 <213> ORGANISM: Mouse
121 <220> FEATURE:
122 <221> NAME/KEY: VARIANT
123 <222> LOCATION: (1)...(123)
124 <223> OTHER INFORMATION: HPCM6-hybridoma
126 <400> SEQUENCE: 4
127 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
128 1 5 10 15
129 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Phe
130 20 25 30
131 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
132 35 40 45
133 Ala Ala Ser Arg Asn Lys Ala Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
134 50 55 60
135 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
136 65 70 75 80
137 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
138 85 90 95
139 Tyr Cys Ala Arg Asp Tyr Tyr Asp Tyr Pro His Trp Tyr Phe Asp Val
140 100 105 110
141 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
142 115 120
144 <210> SEQ ID NO: 5
145 <211> LENGTH: 123
146 <212> TYPE: PRT
147 <213> ORGANISM: Mouse
149 <220> FEATURE:
150 <221> NAME/KEY: VARIANT
151 <222> LOCATION: (1)...(123)
152 <223> OTHER INFORMATION: HPCM4-hybridoma
154 <400> SEQUENCE: 5
155 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
156 1 5 10 15
157 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Phe
158 20 25 30
159 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
160 35 40 45
161 Ala Ala Ser Arg Asn Lys Ala Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
162 50 55 60
163 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
164 65 70 75 80
165 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Phe
166 85 90 95
167 Tyr Cys Ala Arg Asp Tyr Tyr Arg Tyr Asp Gly Trp Tyr Phe Asp Val
168 100 105 110
169 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
170 115 120
172 <210> SEQ ID NO: 6
173 <211> LENGTH: 123

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/726,650

DATE: 11/05/2001

TIME: 13:21:50

Input Set : D:\062710024DVUS01.TXT

Output Set: N:\CRF3\11022001\I726650.raw

```

174 <212> TYPE: PRT
175 <213> ORGANISM: Mouse
177 <400> SEQUENCE: 6
178 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
179 1 5 10 15
180 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Phe
181 20 25 30
182 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
183 35 40 45
184 Ala Ala Ser Arg Asn Lys Phe Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
185 50 55 60
186 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
187 65 70 75 80
188 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
189 85 90 95
190 Tyr Cys Ala Arg Asp Tyr Tyr Gly Ser Arg Tyr Trp Tyr Phe Asp Val
191 100 105 110
192 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
193 115 120
195 <210> SEQ ID NO: 7
196 <211> LENGTH: 123
197 <212> TYPE: PRT
198 <213> ORGANISM: Mouse
200 <220> FEATURE:
201 <221> NAME/KEY: VARIANT
202 <222> LOCATION: (1)...(123)
203 <223> OTHER INFORMATION: HPCG13-hybridoma
205 <400> SEQUENCE: 7
206 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
207 1 5 10 15
208 Ser Leu Arg Leu Ser Cys Ala Leu Ser Gly Phe Thr Phe Ser Asp Phe
209 20 25 30
210 Tyr Met Glu Trp Val Arg Gln Thr Pro Gly Lys Arg Leu Glu Trp Ile
211 35 40 45
212 Ala Ala Ser Arg Asn Val Tyr Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
213 50 55 60
214 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
215 65 70 75 80
216 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
217 85 90 95
218 Tyr Cys Ala Arg Asp Ala Tyr Gly Ser Ser Tyr Trp Tyr Phe Asp Val
219 100 105 110
220 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
221 115 120
223 <210> SEQ ID NO: 8
224 <211> LENGTH: 123
225 <212> TYPE: PRT
226 <213> ORGANISM: Mouse
228 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 11/05/2001

PATENT APPLICATION: US/09/726,650

TIME: 13:21:50

Input Set : D:\062710024DVUS01.TXT

Output Set: N:\CRF3\11022001\I726650.raw

```

229 <221> NAME/KEY: VARIANT
230 <222> LOCATION: (1)...(123)
231 <223> OTHER INFORMATION: HPCG14-hybridoma
233 <400> SEQUENCE: 8
234 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
235 1 5 10 15
236 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Phe
237 20 25 30
238 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
239 35 40 45
240 Ala Ala Ser Arg Asn Lys Ala Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
241 50 55 60
242 Ser Val Lys Gly Arg Phe Val Ser Arg Asp Thr Ser Gln Ser Ile
243 65 70 75 80
244 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
245 85 90 95
246 Tyr Cys Ala Arg Asp Val Tyr Gly Tyr Asp Tyr Trp Tyr Phe Asp Val
247 100 105 110
248 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
249 115 120
251 <210> SEQ ID NO: 9
252 <211> LENGTH: 123
253 <212> TYPE: PRT
254 <213> ORGANISM: Mouse
256 <220> FEATURE:
257 <221> NAME/KEY: VARIANT
258 <222> LOCATION: (1)...(123)
259 <223> OTHER INFORMATION: HPCG11-hybridoma
261 <400> SEQUENCE: 9
262 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
263 1 5 10 15
264 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Ile Thr Phe Ser Asp Phe
265 20 25 30
266 Tyr Met Glu Trp Val Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
267 35 40 45
268 Ala Ala Ser Arg Asn Lys Ser Asn Asp Tyr Thr Thr Glu Tyr Ser Ala
269 50 55 60
270 Ser Val Lys Gly Arg Phe Ile Val Ser Arg Asp Thr Ser Gln Ser Ile
271 65 70 75 80
272 Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Thr Ala Ile Tyr
273 85 90 95
274 Tyr Cys Ala Arg Asp Tyr Tyr Gly Ser Ser Tyr Trp Tyr Phe Asp Val
275 100 105 110
276 Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
277 115 120
279 <210> SEQ ID NO: 10
280 <211> LENGTH: 123
281 <212> TYPE: PRT
282 <213> ORGANISM: Mouse

```

Use of n and / or Xaa has been detected in the
Sequence Listing. Review the Sequence Listing
to ensure a corresponding explanation is present
in the <220> to <223> fields of each sequence
using n or Xaa. *met*

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/726,650

DATE: 11/05/2001

TIME: 13:21:51

Input Set : D:\062710024DVUS01.TXT

Output Set: N:\CRF3\11022001\I726650.raw

L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:593 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:644 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:659 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:673 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:715 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:779 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:1049 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59
L:1066 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60
L:1346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85
L:1362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86